WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Monday, September 27, 2004

Hide?	Set Name	Query	Hit Count
		DB=PGPB,USPT,USOC,JPAB,DWPI; PLUR=YES; OP=ADJ	
☐	L5	L1 near5 (promoter or regulat? region or cis$ element or 5 UTR)	2
☐	L4	L1 near5 (promoter or regulat? region or cis$ element or "5 UTR")	2
☐	L3	L1 near5 (promoter or regulat? region or cis$ element or "5' UTR")	2
☐	L2	L1 and (promoter or regulat? region or cis$ element or "5' UTR")	162
☐	L1	growth differentiation factor 9 or GDF-9	204

END OF SEARCH HISTORY

$%^STN;HighlightOn= ***;HighlightOff=*** ;

Welcome to STN International! Enter x:x

LOGINID:ssspta1633cxq

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

********** Welcome to STN International **********

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 Jul 12 BEILSTEIN enhanced with new display and select options, resulting in a closer connection to BABS
NEWS 4 Jul 30 BEILSTEIN on STN workshop to be held August 24 in conjunction with the 228th ACS National Meeting
NEWS 5 AUG 02 IFIPAT/IFIUDB/IFICDB reloaded with new search and display fields
NEWS 6 AUG 02 CAplus and CA patent records enhanced with European and Japan Patent Office Classifications
NEWS 7 AUG 02 The Analysis Edition of STN Express with Discover! (Version 7.01 for Windows) now available
NEWS 8 AUG 04 Pricing for the Save Answers for SciFinder Wizard within STN Express with Discover! will change September 1, 2004
NEWS 9 AUG 27 BIOCOMMERCE: Changes and enhancements to content coverage
NEWS 10 AUG 27 BIOTECHABS/BIOTECHDS: Two new display fields added for legal status data from INPADOC
NEWS 11 SEP 01 INPADOC: New family current-awareness alert (SDI) available
NEWS 12 SEP 01 New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS 13 SEP 01 New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
NEWS 14 SEP 14 STN Patent Forum to be held October 13, 2004, in Iselin, NJ
NEWS 15 SEP 27 STANDARDS will no longer be available on STN
NEWS 16 SEP 27 SWETSCAN will no longer be available on STN

NEWS EXPRESS JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

********** STN Columbus **********

FILE 'HOME' ENTERED AT 16:27:36 ON 27 SEP 2004

=> FIL BIOSIS EMBASE CAPLUS
COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 0.21 0.21

FILE 'BIOSIS' ENTERED AT 16:27:51 ON 27 SEP 2004
Copyright (c) 2004 The Thomson Corporation.

FILE 'EMBASE' ENTERED AT 16:27:51 ON 27 SEP 2004
COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'CAPLUS' ENTERED AT 16:27:51 ON 27 SEP 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> s growth differentiation factor 9 or GDF 9
L1 359 GROWTH DIFFERENTIATION FACTOR 9 OR GDF 9

=> s l1 and (promoter or regulat? region? or regulat? element? or 5 UTR)
L2 11 L1 AND (PROMOTER OR REGULAT? REGION? OR REGULAT? ELEMENT? OR 5 UTR)

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3 6 DUP REM L2 (5 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 6 ANSWERS - CONTINUE? Y/(N):y

L3 ANSWER 1 OF 6 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN DUPLICATE 1
AN 2003342043 EMBASE
TI GCNF-dependent repression of BMP-15 and ***GDF*** - ***9*** mediates gamete regulation of female fertility.
AU Lan Z.-J.; Gu P.; Xu X.; Jackson K.J.; DeMayo F.J.; O'Malley B.W.; Cooney A.J.
CS A.J. Cooney, Dept. of Molec. and Cellular Biology, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, United States. acooney@bcm.tmc.edu
SO EMBO Journal, (15 Aug 2003) 22/16 (4070-4081).
Refs: 48
ISSN: 0261-4189 CODEN: EMJODG
CY United Kingdom
DT Journal; Article
FS 010 Obstetrics and Gynecology
029 Clinical Biochemistry
LA English
SL English
AB To determine the function of germ cell nuclear factor (GCNF) in female reproduction, we generated an oocyte-specific GCNF knockout mouse model (GCNF(fl/fl)Zp3Cre(+)). These mice displayed hypofertility due to prolonged diestrus phase of the estrous cycle and aberrant steroidogenesis. These reproductive defects were secondary to a primary defect in the oocytes, in which expression of the paracrine transforming growth factor-.beta. signaling molecules, bone morphogenetic protein 15 (BMP-15) and ***growth*** ***differentiation*** ***factor*** ***9*** (***GDF*** - ***9***), were up-regulated in GCNF (fl/fl)Zp3Cre(+) females at diestrus. This was a direct effect of GCNF, as molecular studies showed that GCNF bound to DR0 elements within the BMP-15 and ***GDF*** - ***9*** gene promoters and repressed their reporter activities. Consistent with these findings, abnormal double-oocyte follicles, indicative of aberrant BMP-151 ***GDF*** - ***9*** expression, were observed in GCNF (fl/fl)Zp3Cre(+) females. The Cre/loxP knockout of GCNF in the oocyte has uncovered a new regulatory pathway in ovarian function. Our results show that GCNF directly regulates paracrine communication between the oocyte and somatic cells by regulating the expression of BMP-15 and ***GDF*** - ***9*** , to affect female fertility.

L3 ANSWER 2 OF 6 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
DUPLICATE 2
AN 2003:40151 BIOSIS
DN PREV200300040151
TI ***Growth*** ***differentiation*** ***factor*** - ***9*** stimulates inhibin production and activates Smad2 in cultured rat granulosa cells.
AU Roh, Jae-Sook; Bondestam, Jonas; Mazerbourg, Sabine; Kaivo-oja, Noora; Groome, Nigel; Ritvos, Olli; Hsueh, Aaron J. W. [Reprint Author]
CS Department of Gynecology and Obstetrics, Stanford University School of Medicine, Stanford, CA, 94305-5317, USA aaron.hsueh@stanford.edu
SO Endocrinology, (January 2003) Vol. 144, No. 1, pp. 172-178. print.
CODEN: ENDOAO. ISSN: 0013-7227.
DT Article
LA English
ED Entered STN: 15 Jan 2003
Last Updated on STN: 15 Jan 2003
AB Ovarian inhibin production is stimulated by FSH and several TGFbeta family ligands including activins and bone morphogenetic proteins. ***Growth*** ***differentiation*** ***factor*** - ***9*** (***GDF*** - ***9***) derived by the oocyte is a member of the TGFbeta/activin family, and we have previously shown that ***GDF*** - ***9*** treatment stimulates ovarian inhibin-alpha content in explants of neonatal ovaries. However, little is known about ***GDF*** - ***9*** regulation of inhibin production in granulosa cells and downstream signaling proteins activated by ***GDF*** - ***9*** . Here, we used cultured rat granulosa cells to examine the influence of ***GDF*** - ***9*** on basal and FSH-stimulated inhibin production, expression of inhibin subunit transcripts, and the ***GDF*** - ***9*** activation of Smad phosphorylation. Granulosa cells from small antral follicles of diethylstilbestrol-primed immature rats were cultured with FSH in the presence or absence of increasing concentrations of ***GDF*** - ***9*** . Secreted dimeric inhibin A and inhibin B were quantified using specific ELISAs, whereas inhibin subunit RNAs were analyzed by Northern blotting using 32P-labeled inhibin subunit cDNA probes. Similar to FSH, treatment with ***GDF*** - ***9*** stimulated dose- and time-dependent increases of both inhibin A and inhibin B production. Furthermore, coincubation of cells with ***GDF*** - ***9*** and FSH led to a synergistic stimulation of both inhibin A and inhibin B production. ***GDF*** - ***9*** treatment also increased mRNA expression for inhibin-alpha and inhibin-beta subunits. To investigate Smad activation, granulosa cell lysates were analyzed in immunoblots using antiphosphoSmad1 and antiphosphoSmad2 antibodies. ***GDF*** - ***9*** treatment increased Smad2, but not Smad1, phosphorylation with increasing

doses of ***GDF*** - ***9*** leading to a dose-dependent increase in phosphoSmad2 levels. To further investigate inhibin-alpha gene ***promoter*** activation by ***GDF*** - ***9*** , granulosa cells were transiently transfected with an inhibin-alpha ***promoter*** -luciferase reporter construct and cultured with different hormones before assaying for luciferase activity. Treatment with FSH or ***GDF*** - ***9*** resulted in increased inhibin-alpha gene ***promoter*** activity, and combined treatment with both led to synergistic increases. The present data demonstrate that oocyte-derived ***GDF*** - ***9*** , alone or together with pituitary-derived FSH, stimulates inhibin production, inhibin subunit mRNA expression, and inhibin-alpha ***promoter*** activity by rat granulosa cells. The synergistic stimulation of inhibin secretion by the paracrine hormone ***GDF*** - ***9*** and the endocrine hormone FSH could play an important role in the feedback regulation of FSH release, thus leading to the modulation of follicle maturation and ovulation.

L3 ANSWER 3 OF 6 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
DUPLICATE 3
AN 2002:401575 BIOSIS
DN PREV200200401575
TI ***Growth*** ***differentiation*** ***factor*** - ***9*** inhibits 3'5'-adenosine monophosphate-stimulated steroidogenesis in human granulosa and theca cells.
AU Yamamoto, Noriko; Christenson, Lane K.; McAllister, Jan M.; Strauss, Jerome F., III [Reprint author]
CS Center for Research on Reproduction and Women's Health, 421 Curie Boulevard, 1354 Biomedical Research Building II/III, Philadelphia, PA, 19104, USA
jfs3@mail.med.upenn.edu
SO Journal of Clinical Endocrinology and Metabolism, (June, 2002) Vol. 87, No. 6, pp. 2849-2856. print.
CODEN: JCEMAZ. ISSN: 0021-972X.
DT Article
LA English
ED Entered STN: 24 Jul 2002
Last Updated on STN: 29 Aug 2002
AB ***Growth*** ***differentiation*** ***factor*** - ***9*** (***GDF*** - ***9***), a member of the transforming growth factor superfamily, modulates the development and function of granulosa and theca cells. Targeted deletion of ***GDF*** - ***9*** in the mouse revealed that ***GDF*** - ***9*** was essential for the establishment of the thecal cell layer during early folliculogenesis. During later stages of follicular development, the roles of ***GDF*** - ***9*** are less well understood, but it has been postulated that oocyte-derived ***GDF*** - ***9*** may prevent premature luteinization of follicular cells, based on its ability to modulate steroidogenesis by rodent ovarian cells. In the rodent, ***GDF*** - ***9*** is expressed solely by the oocyte from the early primary follicular stage through ovulation. Recent studies in the rhesus monkey demonstrated that granulosa cells express ***GDF*** - ***9*** , suggesting a broader role for this protein in ovarian function in primates. We examined the effect of recombinant ***GDF*** - ***9*** on proliferating human granulosa and thecal cell steroidogenesis and the expression of steroidogenic acute regulatory protein (StAR), P450 side-chain cleavage, and P450 aromatase. We also examined granulosa cell ***GDF*** - ***9*** expression by quantitative RT-PCR and by Western analysis. ***GDF*** - ***9*** inhibited 8-Br-cAMP-stimulated granulosa progesterone synthesis by approximately 40%, but did not affect basal progesterone production. Concordant with reduced steroid production, 8-Br-cAMP-stimulated StAR protein expression was reduced approximately 40% in granulosa cells, as were expression of StAR mRNA and StAR ***promoter*** activity. Additionally, ***GDF*** - ***9*** inhibited 8-Br-cAMP-stimulated expression of P450 side-chain cleavage and P450 aromatase. Human granulosa cells expressed ***GDF*** - ***9*** , as determined by RT-PCR and Western analysis. Treatment of human thecal cells with ***GDF*** - ***9*** blocked forskolin-stimulated progesterone, 17alpha-hydroxyprogesterone, and dehydroepiandrosterone synthesis. Thecal cells exhibited greater sensitivity to ***GDF*** - ***9*** , suggesting that this cell may be a primary target of ***GDF*** - ***9*** . Moreover, ***GDF*** - ***9*** increased thecal cell numbers during culture, but had no effect on granulosa cell growth. Our findings implicate ***GDF*** - ***9*** in the modulation of follicular steroidogenesis, especially theca cell function. Because ***GDF*** - ***9*** mRNA and protein are detectable in granulosa-lutein cells after the LH surge, the concept of ***GDF*** - ***9*** as a solely oocyte-derived luteinization inhibitor needs to be reevaluated.

L3 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:640978 CAPLUS
DN 131:267961
TI Transcription regulatory sequences derived from mouse ***growth*** ***differentiation*** ***factor*** - ***9*** (***GDF*** - ***9***) gene and methods to modulate tissue-specific expression
IN Matzuk, Martin Matthew; Elvin, Julia Andrea
PA Metamorphix, Inc., USA
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9950406	A2	19991007	WO 1999-US7185	19990331
WO 9950406	A3	19991118		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2324286	AA	19991007	CA 1999-2324286	19990331
AU 9934626	A1	19991018	AU 1999-34626	19990331
EP 1070134	A2	20010124	EP 1999-916271	19990331

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

BR 9909288	A	20011127	BR 1999-9288	19990331
JP 2004512003	T2	20040422	JP 2000-541294	19990331
PRAI US 1998-80108P	P	19980401		
WO 1999-US7185	W	19990331		

AB Isolated ***GDF*** - ***9*** regulatory sequences are disclosed, as well as methods of using the sequences to modulate tissue-specific expression of genes. The ***GDF*** - ***9*** regulatory sequences include, for example, enhancer and ***promoter*** elements that naturally drive transcription of ***GDF*** - ***9*** in specific tissues. The ***GDF*** - ***9*** regulatory sequences can be derived from the untranscribed upstream (e.g., first 10 kilobases) and downstream regions, and transcribed, untranslated regions of a ***GDF*** - ***9*** gene. Marked ***GDF*** - ***9*** mRNA accumulation was shown both in the ovary and the testis of transgenic mice contg. ***GDF*** - ***9*** -regulatory sequence constructs.

L3 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:487225 CAPLUS
DN 131:120903
TI Methods and compositions for enhancing cognitive function using morphogenetic proteins
IN Charette, Marc F.
PA Creative Biomolecules, Inc., USA
SO PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9937320	A1	19990729	WO 1999-US1232	19990121

W: AU, CA, JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

US 2003170213	A1	20030911	US 1998-12846	19980123
AU 9923309	A1	19990809	AU 1999-23309	19990121
EP 1047443	A1	20001102	EP 1999-903241	19990121

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

EP 1398039	A1	20040317	EP 2003-23804	19990121

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY

US 2004176292	A1	20040909	US 2003-734472	20031212
PRAI US 1998-12846	A	19980123		
EP 1999-903241	A3	19990121		
WO 1999-US1232	W	19990121		

AB Disclosed are methods and compns. for protecting cognitive function in a mammal, particularly a human, subject to brain tissue damage, by administering a morphogen or a nucleic acid encoding a morphogen to the mammal. The methods and compns. can be used to reduce memory dysfunction
and/or to provide a neuroprotective effect in subjects at risk of memory dysfunction resulting from a mech. or chem. trauma, neuropathies, neurodegenerative diseases, or oxygen or glucose deprivation.
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:375567 CAPLUS
DN 131:28319
TI Maintenance of vascular smooth muscle integrity by morphogenic proteins
IN Nakaoka, Takashi; Miyazono, Kohei; Sampath, Kuber T.
PA Creative Biomolecules, Inc., USA
SO PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9928341	A2	19990610	WO 1998-US25398	19981130
WO 9928341	A3	19990805		

W: AU, CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,

PT, SE
CA 2314423 AA 19990610 CA 1998-2314423 19981130
AU 9917064 A1 19990616 AU 1999-17064 19981130
EP 1037910 A2 20000927 EP 1998-961838 19981130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
PRAI US 1997-67690P P 19971204
WO 1998-US25398 W 19981130
AB Disclosed are compns. and methods for maintaining the integrity of smooth muscle, particularly vascular smooth muscle. Vascular diseases are characterized by an excessive build-up of vascular smooth muscle cells, resulting in an occlusion of a blood vessel, and/or by loss of elasticity in the blood vessels. Causes of blood vessel occlusion include smooth muscle cell proliferation and inflammatory responses. Inhibition of the proliferation of smooth muscle cells or inflammatory responses represents an effective treatment for vascular disorders, such as atherosclerosis and restenosis. Treatment may include administration of a morphogenic protein. The protein itself may be delivered to the site of vascular occlusion or the protein may be delivered by a vector, such as an adenoviral vector contg. a DNA insert encoding a morphogenic protein. Such compns. and methods may also inhibit the responses of smooth muscle cells to various traumas, such as exposure to toxic agents. All of these treatments operate to preserve the cell phenotype by inhibiting an increase in extracellular matrix proteins, such as collagen, or by maintaining the normal balance of extracellular matrix proteins, such as Types I and III collagen.

=> d his

(FILE 'HOME' ENTERED AT 16:27:36 ON 27 SEP 2004)

FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 16:27:51 ON 27 SEP 2004
L1 359 S GROWTH DIFFERENTIATION FACTOR 9 OR GDF 9
L2 11 S L1 AND (PROMOTER OR REGULAT? REGION? OR REGULAT? ELEMENT? OR
L3 6 DUP REM L2 (5 DUPLICATES REMOVED)

=> s l1 and (mouse or murine)
L4 152 L1 AND (MOUSE OR MURINE)

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5 88 DUP REM L4 (64 DUPLICATES REMOVED)

=> s l5 and (promoter or regulat? region? or regulat? element? or 5 UTR)
L6 2 L5 AND (PROMOTER OR REGULAT? REGION? OR REGULAT? ELEMENT? OR 5
UTR)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L6 ANSWER 1 OF 2 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 2002:401575 BIOSIS
DN PREV200200401575
TI ***Growth*** ***differentiation*** ***factor*** - ***9*** inhibits 3'5'-adenosine monophosphate-stimulated steroidogenesis in human granulosa and theca cells.
AU Yamamoto, Noriko; Christenson, Lane K.; McAllister, Jan M.; Strauss, Jerome F., III [Reprint author]
CS Center for Research on Reproduction and Women's Health, 421 Curie Boulevard, 1354 Biomedical Research Building II/III, Philadelphia, PA, 19104, USA
jfs3@mail.med.upenn.edu
SO Journal of Clinical Endocrinology and Metabolism, (June, 2002) Vol. 87, No. 6, pp. 2849-2856. print.
CODEN: JCEMAZ. ISSN: 0021-972X.
DT Article
LA English
ED Entered STN: 24 Jul 2002
Last Updated on STN: 29 Aug 2002
AB ***Growth*** ***differentiation*** ***factor*** - ***9*** (***GDF*** - ***9***), a member of the transforming growth factor superfamily, modulates the development and function of granulosa and theca cells. Targeted deletion of ***GDF*** - ***9*** in the ***mouse*** revealed that ***GDF*** - ***9*** was essential for the establishment of the thecal cell layer during early folliculogenesis. During later stages of follicular development, the roles of ***GDF*** - ***9*** are less well understood, but it has been postulated that oocyte-derived ***GDF*** - ***9*** may prevent premature luteinization of follicular cells, based on its ability to modulate steroidogenesis by rodent ovarian cells. In the rodent, ***GDF*** - ***9*** is expressed solely by the oocyte from the early primary follicular stage through ovulation. Recent studies in the rhesus monkey demonstrated that granulosa cells express ***GDF*** - ***9*** , suggesting a broader role for this protein in ovarian function in primates. We examined the effect of recombinant ***GDF*** - ***9*** on proliferating human granulosa and thecal cell steroidogenesis and the expression of steroidogenic acute regulatory protein (StAR), P450 side-chain cleavage, and P450 aromatase. We also examined granulosa cell ***GDF*** - ***9*** expression by quantitative RT-PCR and by Western analysis. ***GDF*** - ***9*** inhibited 8-Br-cAMP-stimulated granulosa progesterone synthesis by approximately 40%, but did not affect basal progesterone production. Concordant with reduced steroid production, 8-Br-cAMP-stimulated StAR protein expression was reduced approximately 40% in granulosa cells, as were expression of StAR mRNA and StAR ***promoter*** activity. Additionally, ***GDF*** - ***9*** inhibited 8-Br-cAMP-stimulated expression of P450 side-chain cleavage and P450 aromatase. Human granulosa cells expressed ***GDF*** - ***9*** , as determined by RT-PCR and Western analysis. Treatment of human thecal cells with ***GDF*** - ***9*** blocked forskolin-stimulated progesterone, 17alpha-hydroxyprogesterone, and dehydroepiandrosterone synthesis. Thecal cells exhibited greater sensitivity to ***GDF*** - ***9*** , suggesting that this cell may be a primary target of ***GDF*** - ***9*** . Moreover, ***GDF*** - ***9*** increased thecal cell numbers during culture, but had no effect on granulosa cell growth. Our findings implicate ***GDF*** - ***9*** in the modulation of follicular steroidogenesis, especially theca cell function. Because ***GDF*** - ***9*** mRNA and protein are detectable in granulosa-lutein cells after the LH surge, the concept of ***GDF*** - ***9*** as a solely oocyte-derived luteinization inhibitor needs to be reevaluated.

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:640978 CAPLUS
DN 131:267961
TI Transcription regulatory sequences derived from ***mouse*** ***growth*** ***differentiation*** ***factor*** - ***9*** (***GDF*** - ***9***) gene and methods to modulate tissue-specific expression
IN Matzuk, Martin Matthew; Elvin, Julia Andrea
PA Metamorphix, Inc., USA
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
PI WO 9950406 A2 19991007 WO 1999-US7185 19990331
WO 9950406 A3 19991118
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
CA 2324286 AA 19991007 CA 1999-2324286 19990331
AU 9934626 A1 19991018 AU 1999-34626 19990331
EP 1070134 A2 20010124 EP 1999-916271 19990331
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
BR 9909288 A 20011127 BR 1999-9288 19990331
JP 2004512003 T2 20040422 JP 2000-541294 19990331
PRAI US 1998-80108P P 19980401
WO 1999-US7185 W 19990331
AB Isolated ***GDF*** - ***9*** regulatory sequences are disclosed, as well as methods of using the sequences to modulate tissue-specific expression of genes. The ***GDF*** - ***9*** regulatory sequences include, for example, enhancer and ***promoter*** elements that naturally drive transcription of ***GDF*** - ***9*** in specific tissues. The ***GDF*** - ***9*** regulatory sequences can be derived from the untranscribed upstream (e.g., first 10 kilobases) and downstream regions, and transcribed, untranslated regions of a ***GDF*** - ***9*** gene. Marked ***GDF*** - ***9*** mRNA accumulation was shown both in the ovary and the testis of transgenic mice contg. ***GDF*** - ***9*** -regulatory sequence constructs.

=>

---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 72.10 72.31

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION
CA SUBSCRIBER PRICE -2.80 -2.80

STN INTERNATIONAL LOGOFF AT 16:37:18 ON 27 SEP 2004